

# 7.0 Cumulative Impacts

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*The US Highway 53 Virginia to Eveleth Draft Environmental Impact Statement (EIS) (December 2014) is incorporated by reference and is considered part of the Final EIS. Parts of Chapter 7 from the Draft EIS are repeated here, but it has been abbreviated to focus only on the preferred alternative.*

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## 7.1 Changes Since the Draft EIS

There have been no changes in the project setting or regulatory context or new technical studies since the Draft EIS that affect the cumulative impacts analysis. There have been no new past actions or future anticipated actions identified relevant to the cumulative impacts analysis. Changes in the project are described in Section 2.3.1. The resulting changes in direct or indirect project impacts are described in Chapters 3 through 6 and have been considered in relation to the cumulative impacts discussed in Section 7.2.

## 7.2 Impacts of the Preferred Alternative and Mitigation

This section addresses the resource areas for which the proposed project will cause direct or indirect impacts and for which past and other anticipated future actions will also be expected to cause impacts. Only those issue areas which are directly or indirectly impacted by both the US 53 project and past and/or other anticipated future projects are discussed below. The following future projects were identified through coordination with jurisdictions and landowners in the study area (Table 7.2-1 of the Draft EIS provides additional detail):

- General development of parcels on the north side of MN 135, west of MN 37 in the Gilbert area (proposer: City of Gilbert)
- Existing and potential future mining and mining related-activities within the permit to mine and environmental setting boundaries (proposer: UTAC/RGGS)
- Continued mining and mining-related activities within the permit to mine area and environmental setting boundary to the southwest, including closing Co. 101 west of Eveleth for a mine crossing (proposer: UTAC)
- Expansion of Minntac mine in Mountain Iron (proposer: Minntac)
- Reconfiguration of water supply systems in Virginia (proposer: City of Virginia)
- Expansion of the Iron Range Off-Highway Vehicle Recreation Area (OHVRA) east of Virginia (proposer: Minnesota Department of Natural Resources (DNR))

### 7.2.1 Recreational Lands and Trails

#### Impacts of the Preferred Alternative

Impacts to the OHVRA by the preferred alternative are expected to be negligible (acquisition of property that has no impact on recreational use, features, or attributes).

#### Impacts of Past/Future Projects

Permitted mining activity will directly affect/eliminate portions of the Mesabi Trail and local snowmobile trails at the time when RGGS terminates license agreements for trail use. RGGS, MnDOT, and the St. Louis and Lake Counties Regional Railroad Authority (SLLCRRA) will coordinate the closure of the trails with construction activities, keeping the trails open as long as possible. No mitigation is stipulated in the current agreement with these users.

There are no known impacts planned to the OHVRA by other projects.

#### **Cumulative Impacts/Mitigation**

Future mining would eliminate the trail section across the mine. The Minnesota Department of Transportation (MnDOT) has made allowance for the future Mesabi Trail to parallel the new road alignment between the new Landfill Road access and the existing trail segment west of the Rouchleau Pit. The trail on the bridge will be a 14-foot wide shared use trail for pedestrians and snowmobiles. With this accommodation, there will still be a gap in the trail between the new and old Landfill Road access points. SLLCRRRA has identified an old railroad corridor under its ownership that crosses through the OHVRA and could be used make a connection between the Landfill Road end of the trail accommodated on the US 53 bridge and the existing trail within the OHVRA. SLLCRRRA has surface rights to the rail corridor and is willing to realign the trail to this location. The trail segment will be constructed as part of the project but funded by state bonds through SLLCRRRA. It will restore the Mesabi Trail connection between Virginia and Gilbert.

Impacts to the Trail Hawks Snowmobile Club Trail Spur as a result of the mining operation will also be mitigated with the accommodation of the shared used trail on the bridge across the Rouchleau Pit, maintaining the connection to Eveleth. The trail realignment is being coordinated between MnDOT, SLLCRRRA, DNR, and others.

As noted, the trail connection is on SLLCRRRA property and avoids further impact to the OHVRA.

## **7.2.2 Economics**

#### **Impacts of the Preferred Alternative**

The US 53 project is anticipated to have no economic impacts to the local economy.

The potential risk to private mining has been reduced by routing the alignment around the current permit to mine area and has limited risk to mineral resources by running the alignment along Landfill Road, which is near the southeast edge of the Biwabik Iron Formation.

From a public land mining perspective, the preferred alternative could restrict access to substantial quantities of ferrous resources, which could affect the long-term viability of the mining near the new roadway. However, the preferred alternative avoids the current permit to mine boundary approved for mining activity. MnDOT has identified mitigation measures for its contribution to this potential impact (Section 4.2 of the Draft EIS provides more detail regarding business mitigation).

#### **Impacts of Past/Future Projects**

Past mining activity in the area has affected the local economy through employment, induced development, and retail and property expenditures. Permits exist or are planned for continued mining in the area in the future (20 to 30 years). This will continue to stimulate the local economy by providing employment opportunities and drawing more workers, who will in turn spend more money in the area. The Taconite Production Tax also provides a significant contribution to the local economy.

#### **Cumulative Impacts/Mitigation**

If the mine cannot meet ambient air quality standards, this could limit mining operations, thereby limiting economic potential of the mine and in turn the amount of Taconite Production Tax generated. MnDOT reduced its risk to mine operation through the road alignment avoiding the permit to mine boundary and skirting the edge of the ore formation.

Potential and other future anticipated actions increase access to businesses in the area and expand the base of potential local consumers. These developments will be reviewed by appropriate City staff, and mitigation for impacts to wetlands, surface waters, and other regulated resources will be provided. No further mitigation is required.

### 7.2.3 Community Connections

#### Impacts of the Preferred Alternative

Impacts to connectivity and travel times will not be substantial for the preferred alternative.

#### Impacts of Past/Future Projects

In general, past and future planned projects have not and are not anticipated to create substantial reroutes or lengthen travel or emergency response times, except for the expected closure of Co. 101 to through traffic, just west of Eveleth, by 2024. UTAC has indicated that mining in this area will require a portion of Co. 101 to close and has not indicated whether the road alignment will be replaced. Connectivity between cities in the area is not anticipated to be affected by any of the other future projects.

#### Cumulative Impacts/Mitigation

Community connections will only be affected by the future closure of Co. 101. The traffic and economic sections of the Draft EIS address the potential cumulative impacts to these resources. No potential mitigation other than project mitigation described in Section 4.7.4 of the Draft EIS has been identified.

### 7.2.4 Utilities

#### Impacts of the Preferred Alternative

MnDOT's proposed action is driven by the RGGS existing easement agreement area terms, which require MnDOT to relocate US 53 from the existing easement agreement area. As a result, the impact to the utilities within this existing easement agreement area is the termination of the easement and subsequent termination of the utility permits. Utility relocation will be required for the preferred alternative; however, given the advanced time for planning and reconstruction of utilities, this is not anticipated to cause major interruptions in service.

#### Impacts of Past/Future Projects

Mining is the activity that is requiring utility relocation. Any future development identified that requires service from the utility providers will coordinate service directly with utility owners.

#### Cumulative Impacts/Mitigation

Effects of future projects, combined with natural population growth, may cumulatively add to the demands on the customer base of utilities in the study area.

To meet any increased demand of utilities from anticipated future development and the other anticipated future projects, providers will plan appropriately through their regular planning processes. No further mitigation is required.

### 7.2.5 Water Supply/Groundwater

#### Impacts of the Preferred Alternative

The preferred alternative will be within Virginia's Inner Emergency Response Area, which is an area more susceptible to drinking water contamination due to contaminant releases or other threats. Best management practices (BMPs) implemented by MnDOT will minimize potential water quality impacts. The Rouchleau Pit water will continue to be monitored by the City for turbidity and other contaminants.

#### Impacts of Past/Future Projects

Past mining activity in the area has required extensive dewatering and changes to area water levels. Expansion of the UTAC mine or potential southwest expansion of the ArcelorMittal/Minorca mine into the Rouchleau Pit has been identified by the City and the mine operator(s) as a potential future impact to the existing water supply. As mining activity approaches the Rouchleau Pit, at some point dewatering will be necessary to allow for mine operations, resulting in a drop in the water level of the Rouchleau Pit. The city of Virginia relies on the pit for drinking water, so the water supply will need to be assessed as part of mining activities that could affect that pit.

### Cumulative Impacts/Mitigation

MnDOT will implement mitigation measures to minimize and avoid potential impacts to Rouchleau Pit water quality. The mining impact to the water supply will not occur within the same timeframe as the roadway relocation project. Mitigation for potential water quality impacts for the US 53 project and for future mining activity will be provided, as required by National Pollutant Discharge Elimination System (NPDES) and other permit requirements. Impacts related to road and mine activities on water levels will be addressed through respective DNR water appropriation permits. No further mitigation is required.

## 7.2.6 Waterbody Modifications and Wetlands

### Impacts of the Preferred Alternative

The preferred alternative will have an impact on 15.49 acres of wetlands, 9.96 acres of which are regulated permanent wetland impacts. Temporary wetland impacts (0.75 acres) will be restored after construction. These impacts include those associated with the removal of the roadway within the easement agreement area. It also has the potential to temporarily affect the body of water in the Rouchleau Pit during bridge construction.

### Impacts of Past/Future Projects

Past and current mining activity in the area has required extensive dewatering and has changed water levels in surrounding surface waters, including wetlands. Future mining in the study area may include dewatering of the Rouchleau Pit and expansion of mining between the Auburn and Rouchleau Pits. This may have the potential to impact adjacent wetlands and waterbodies; however, without a specific mining plan these impacts cannot be certain. Past mine dewatering may have also affected water quality in downstream waters (i.e., Manganika Lake is high in methyl mercury).

### Cumulative Impacts/Mitigation

Past mining and filling of the Rouchleau Pit and future mining and dewatering of the Rouchleau Pit could result in a lower water elevation in the pit. The preferred alternative will cross the pit with a bridge, avoiding most impacts to the pit. US 53 wetland impacts will be mitigated consistent with obtained wetland, NPDES, and appropriation permits/approvals.

Under current state and federal laws, the mine operator/owner will be required to determine if the affected wetland areas are jurisdictional or regulated and to obtain the appropriate approvals and replacement required, similar to the US 53 project. The extent of potential impacts to wetlands by mining activities cannot be estimated without a mining plan (which provides information such as depth and amount of dewatering), and such a plan does not currently exist. However, the impacts will be mitigated so there will be no cumulative impact on wetlands. Construction dewatering impacts from the US 53 project will be localized for bridge piers; temporary, if they occur; and primarily result from the volume of water transferred in a short period of time (during construction) versus mining dewatering which will drop water levels over a much longer time period (decades). Both actions will require obtaining necessary permits from the DNR and Minnesota Pollution Control Agency (MPCA) and mitigate impacts to discharge/receiving waters.

## 7.2.7 Surface Water/Water Quantity and Quality

### Impacts of the Preferred Alternative

The preferred alternative will result in a net increase of impervious surface of approximately three acres, and treatment of stormwater will be required. Water quality treatment of the runoff from the pit crossing areas will be necessary to maintain the existing level of water quality treatment in the study area. Stormwater ponding will be designed to meet the requirements of the NPDES permit for water quality treatment.

### Impacts of Past/Future Projects

It will be expected that future mining expansion and highway and development projects could increase impervious area, mine dewatering discharge, and/or increase stormwater runoff. Under the preferred alternative, mining by UTAC of the existing easement agreement area will cut off the stormwater flow east

of the Rouchleau Pit that currently crosses along the north side of US 53, requiring rerouting of this flow to another receiving water or increase pit dewatering to compensate increased flow to the mine pit. These projects will be subject to state and federal requirements and the responsibility of the mine operator.

#### **Cumulative Impacts/Mitigation**

The identified past, present, and future projects may incur some level of stormwater runoff that may affect nearby surface waters. Stormwater will be regulated, and mitigation will be completed on a project-by-project basis, as required by state and federal regulations. Therefore, there will be no cumulative impact on surface water quality and stormwater given that the impacts will be mitigated.

## **7.2.8 Noise**

#### **Impacts of the Preferred Alternative**

The preferred alternative will move the traffic noise source from the existing US 53 corridor to a new corridor, therefore affecting different receptors. The preferred alternative will impact two areas where noise barriers were found to be cost-effective. Benefitted receivers were given the opportunity to vote for or against construction of the noise barriers, and the voting process resulted in both walls not being constructed.

#### **Impacts of Past/Future Projects**

Traffic from anticipated future development projects will contribute to future traffic noise generation; however, those potential impacts have already been accounted for in the future traffic forecasts used for the US 53 traffic noise analysis.

Implementation of future mine expansion projects and/or the OHVRA facility may also increase or change the location of noise generation from activities at those facilities. If noise generation exceeds regulatory thresholds, special permit conditions or implementation of mitigation may be required. For example, the DNR has source standards for off-road vehicles, and the MPCA regulates noise as per the requirements of Minnesota Rules, part 7030.

#### **Cumulative Impacts/Mitigation**

Each separate project will be responsible for mitigating its own noise impacts based on regulatory requirements. Also, identified future projects are far enough apart geographically and in time that any increase in noise is not likely to affect the same populations, and, therefore, cumulative effects will be minimal.

## **7.2.9 Vegetation/Cover Types**

#### **Impacts of the Preferred Alternative**

The preferred alternative will result in localized loss of vegetation in some areas. No mitigation is required for these impacts other than revegetation and stabilization of disturbed areas.

#### **Impacts of Past/Future Projects**

Permits exist for continued mining in the area in the future. Mining activity will likely remove existing vegetation. When mining areas are abandoned, it is likely that these areas will be revegetated to the extent feasible, as was done when mining in the Rouchleau Pit was completed.

#### **Cumulative Impacts/Mitigation**

The implementation of the US 53 project, combined with other past/future actions, could result in a cumulative reduction in vegetative cover in the project area over time.

The planned projects will be expected to adhere to erosion control and vegetation management BMPs during construction in order to limit indirect impacts to vegetative cover and habitats, and with this mitigation, minor adverse cumulative impacts are anticipated.

## 7.2.10 Hazardous Materials

### Impacts of the Preferred Alternative

A Phase II Environmental Site Assessment was completed for four sites that are within the estimated limits of construction for the preferred alternative. A Response Action Plan (RAP) will be completed, as necessary, for the preferred alternative prior to any right-of-way acquisition or construction by MnDOT. A RAP will set a protocol for properly handling and treating contaminated soil and/or groundwater that could be handled during construction as identified in the contract special provisions or the RAP.

### Impacts of Past/Future Projects

An assessment of hazardous materials will occur for land acquisition or disturbance as necessary for future projects. It is possible that hazardous materials may be encountered or that future projects will become generators of hazardous waste during construction or operation.

### Cumulative Impacts/Mitigation

No cumulative impacts to hazardous waste sites are anticipated as a result of past, present, and future projects. For any project, proper agency coordination will take place to identify the appropriate plans and provisions necessary to handle known or unknown hazardous materials. A management plan will be developed for properly handling, treating, storing, and disposing of solid wastes, hazardous materials, petroleum products, and other regulated materials/wastes that are used or generated during construction. Any specific mitigation will be handled on a project-by-project basis.